

In the Claims:

Please cancel Claims 1-15 of the application and substitute therefor new Claims 17-26 set forth below.

1.-15. (Cancelled)

16. A method for producing differentiated human cells from human embryonic stem cells, the method comprising:

culturing human embryonic stem cells under conditions such that at least some of the cells adhere to a substrate

removing the adhering colonies of the embryonic stem cells from the substrate in clumps;

then incubating the clumps in a container under conditions in which the clumps are essentially inhibited from attaching to the container and under conditions in which the clumps of embryonic stem cells coalesce into embryoid bodies; and

culturing the embryoid bodies to produce human differentiated cells .

17. The method of claim 16 wherein the human differentiated cells are selected from the group consisting of neural cells, cardiac cells and hematopoietic cells.

18. The method of claim 16, wherein the removal step is conducted in the presence of an enzyme that promotes disassociation of the clumps as clumps from the substrate.

19. The method of claim 18, wherein the enzyme is dispase.

20. The method of claim 16, wherein the removal step is conducted in the presence of a chelating agent.

21. The method of claim 16, wherein the removal step comprises mechanically scraping the clumps from the substrate.

22. The method of claim 16, wherein the removal step is conducted in the presence of trypsin, calcium and magnesium.

23. The method of claim 16, wherein the incubation step comprises agitating the container.

24. The method of claim 16, wherein the incubation step is conducted in a container made of plastic.

25. The method of claim 16, wherein the incubation step is conducted in the presence of a serum-free medium.